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FIG. 1

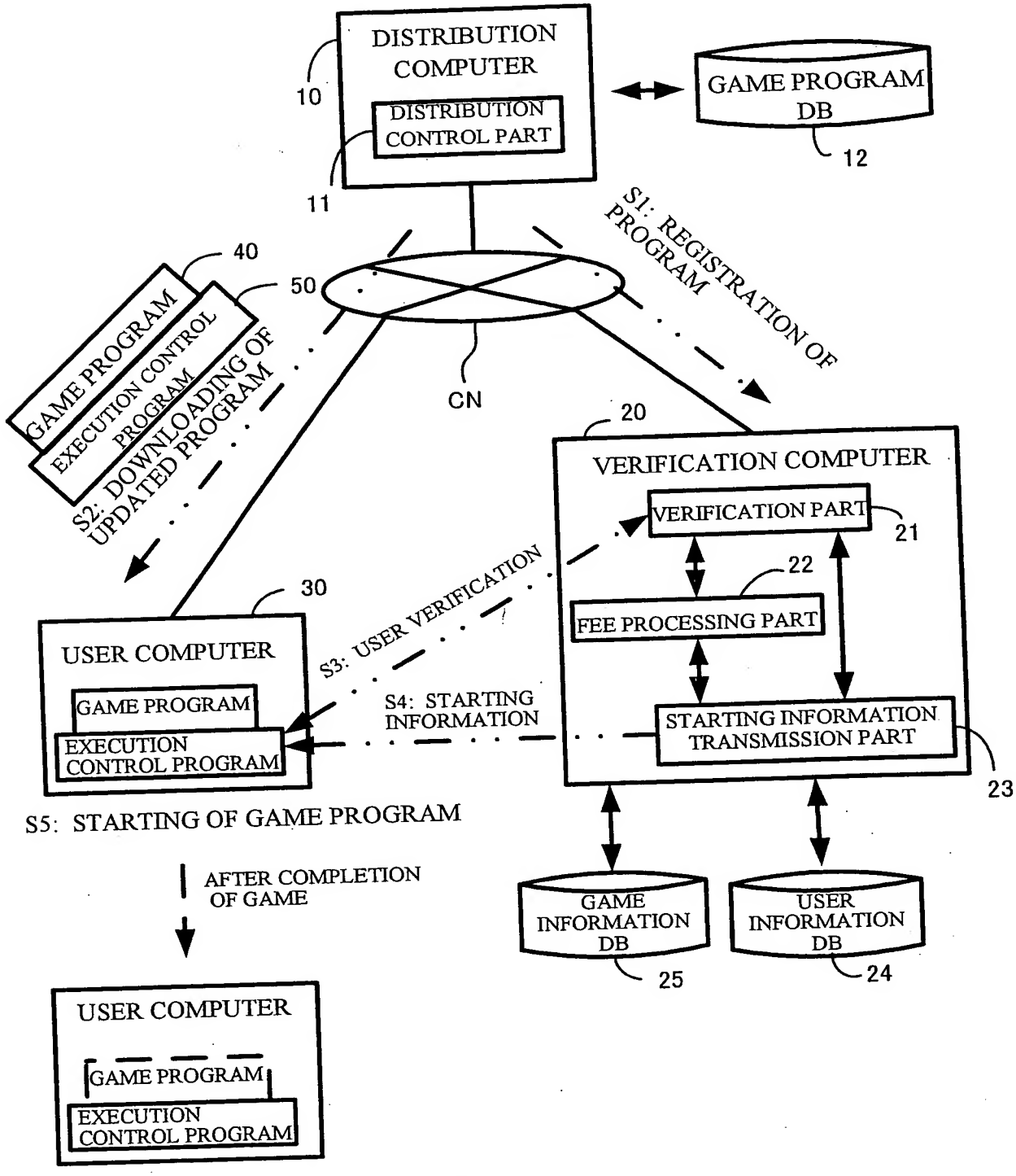


FIG. 2

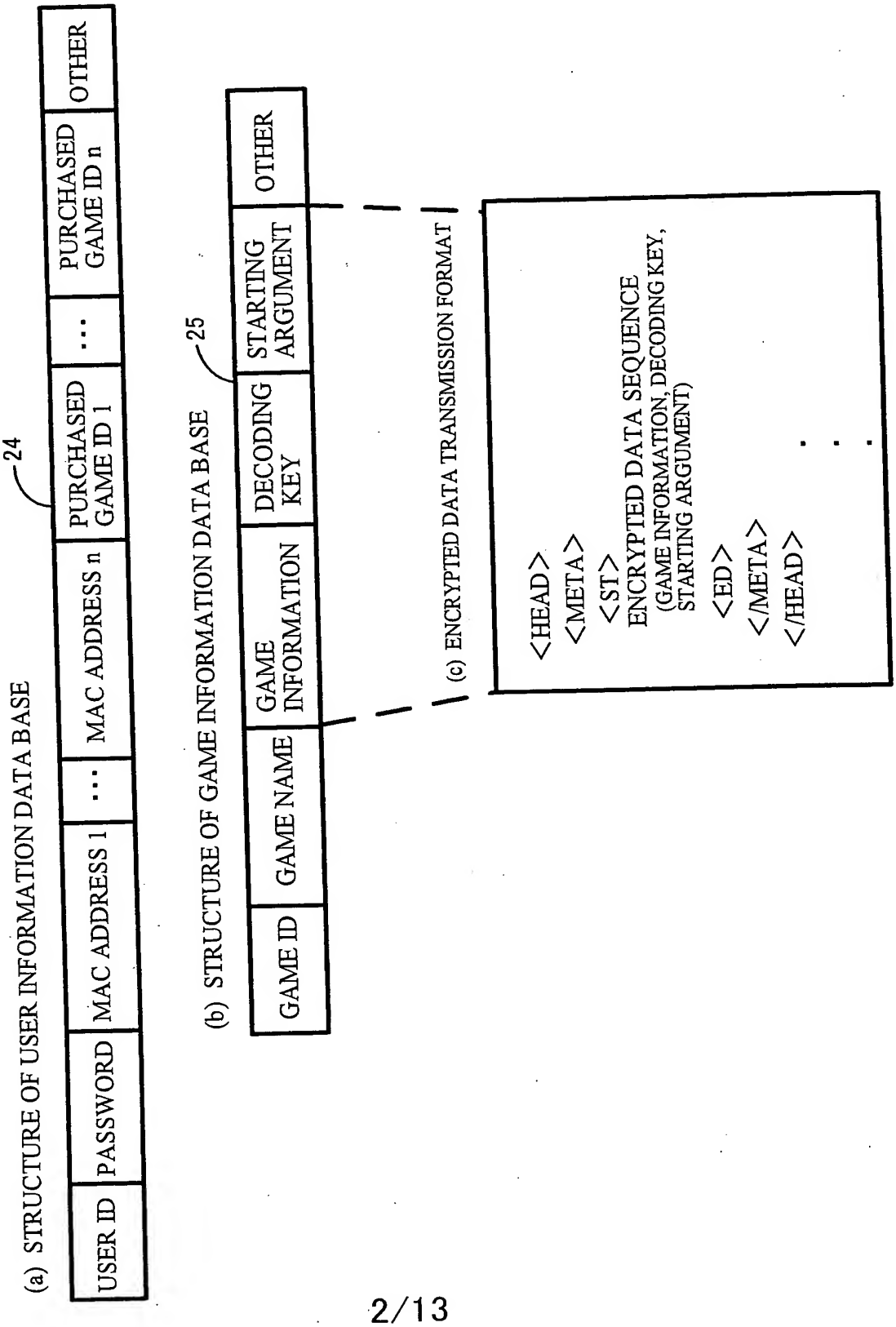
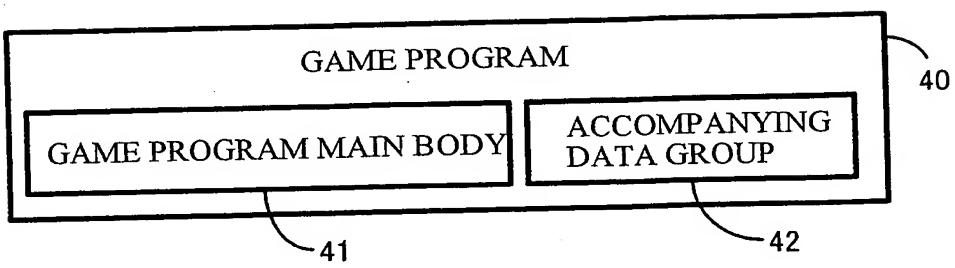

(a) STRUCTURE OF USER INFORMATION DATA BASE
24
USER ID
PASSWORD
MAC ADDRESS 1
...
MAC ADDRESS n
PURCHASED GAME ID 1
...
PURCHASED GAME ID n
OTHER
(b) STRUCTURE OF GAME INFORMATION DATA BASE
25
GAME ID
GAME NAME
GAME INFORMATION
DECODING KEY
STARTING ARGUMENT
OTHER
(c) ENCRYPTED DATA TRANSMISSION FORMAT
<HEAD>
<META>
<ST>
ENCRYPTED DATA SEQUENCE
(GAME INFORMATION, DECODING KEY, STARTING ARGUMENT)
<ED>
</META>
</HEAD>

FIG. 3

(a) STRUCTURE OF GAME PROGRAM



(b) STRUCTURE OF EXECUTION CONTROL PROGRAM

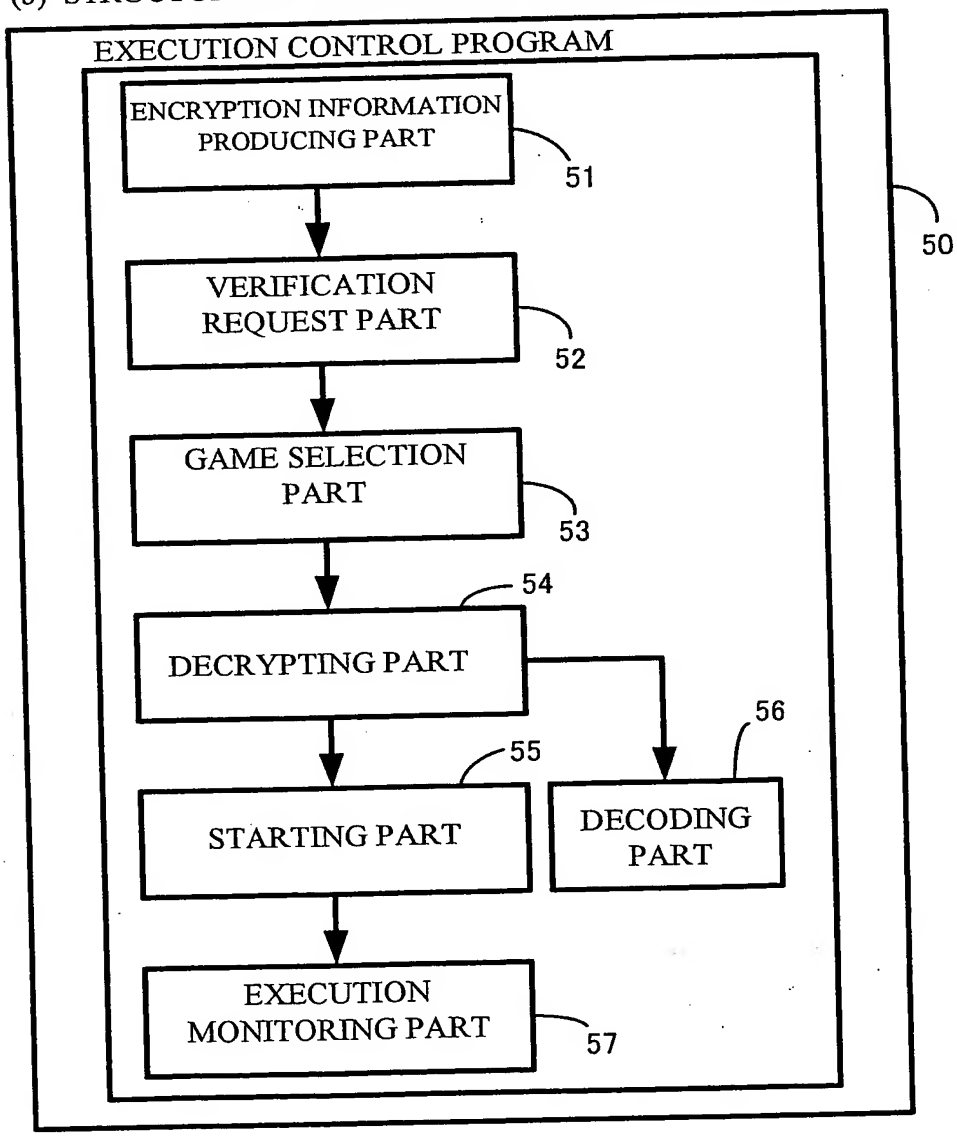


FIG. 4

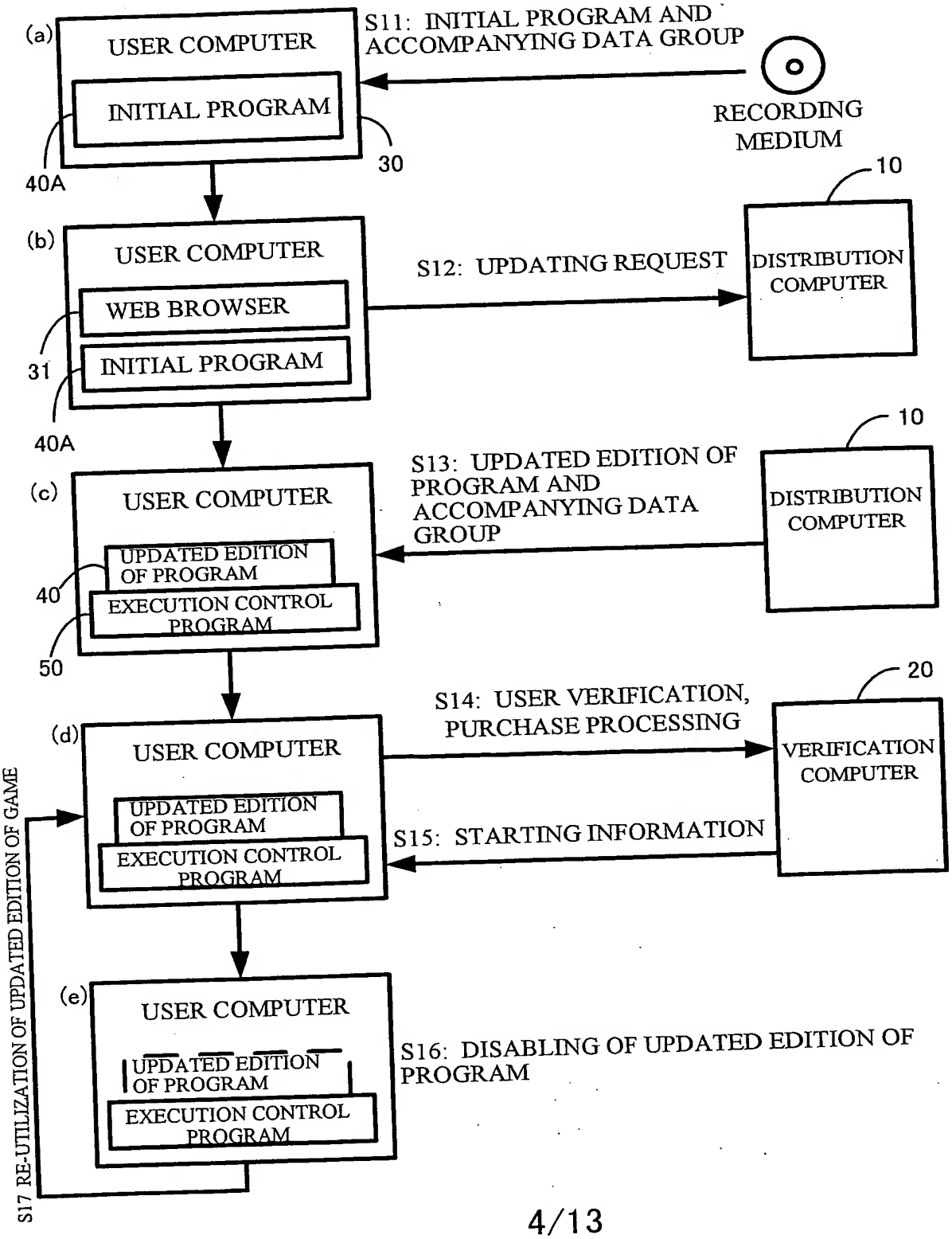

(a)
USER COMPUTER
INITIAL PROGRAM
40A
30
S11: INITIAL PROGRAM AND ACCOMPANYING DATA GROUP
RECORDING MEDIUM
10
(b)
USER COMPUTER
WEB BROWSER
INITIAL PROGRAM
31
40A
S12: UPDATING REQUEST
DISTRIBUTION COMPUTER
10
(c)
USER COMPUTER
UPDATED EDITION OF PROGRAM
EXECUTION CONTROL PROGRAM
40
50
S13: UPDATED EDITION OF PROGRAM AND ACCOMPANYING DATA GROUP
DISTRIBUTION COMPUTER
20
(d)
USER COMPUTER
UPDATED EDITION OF PROGRAM
EXECUTION CONTROL PROGRAM
S14: USER VERIFICATION, PURCHASE PROCESSING
S15: STARTING INFORMATION
VERIFICATION COMPUTER
(e)
USER COMPUTER
UPDATED EDITION OF PROGRAM
EXECUTION CONTROL PROGRAM
S16: DISABLING OF UPDATED EDITION OF PROGRAM
S17 RE-UTILIZATION OF UPDATED EDITION OF GAME

FIG. 5

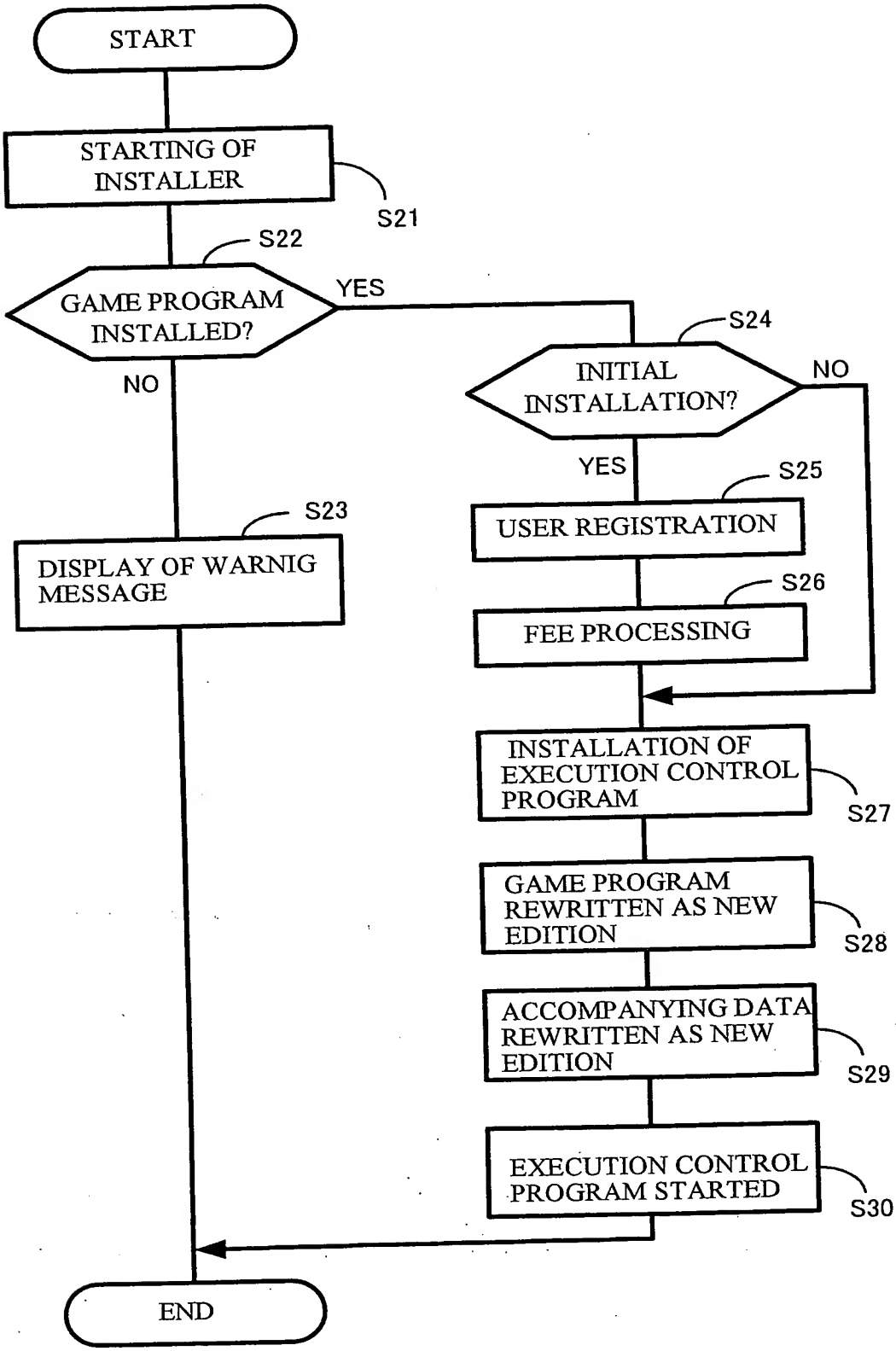

START
STARTING OF INSTALLER
S21
S22
GAME PROGRAM INSTALLED?
YES
NO
S23
DISPLAY OF WARNIG MESSAGE
S24
INITIAL INSTALLATION?
NO
YES
S25
USER REGISTRATION
S26
FEE PROCESSING
INSTALLATION OF EXECUTION CONTROL PROGRAM
S27
GAME PROGRAM REWRITTEN AS NEW EDITION
S28
ACCOMPANYING DATA REWRITTEN AS NEW EDITION
S29
EXECUTION CONTROL PROGRAM STARTED
S30
END

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FIG. 6

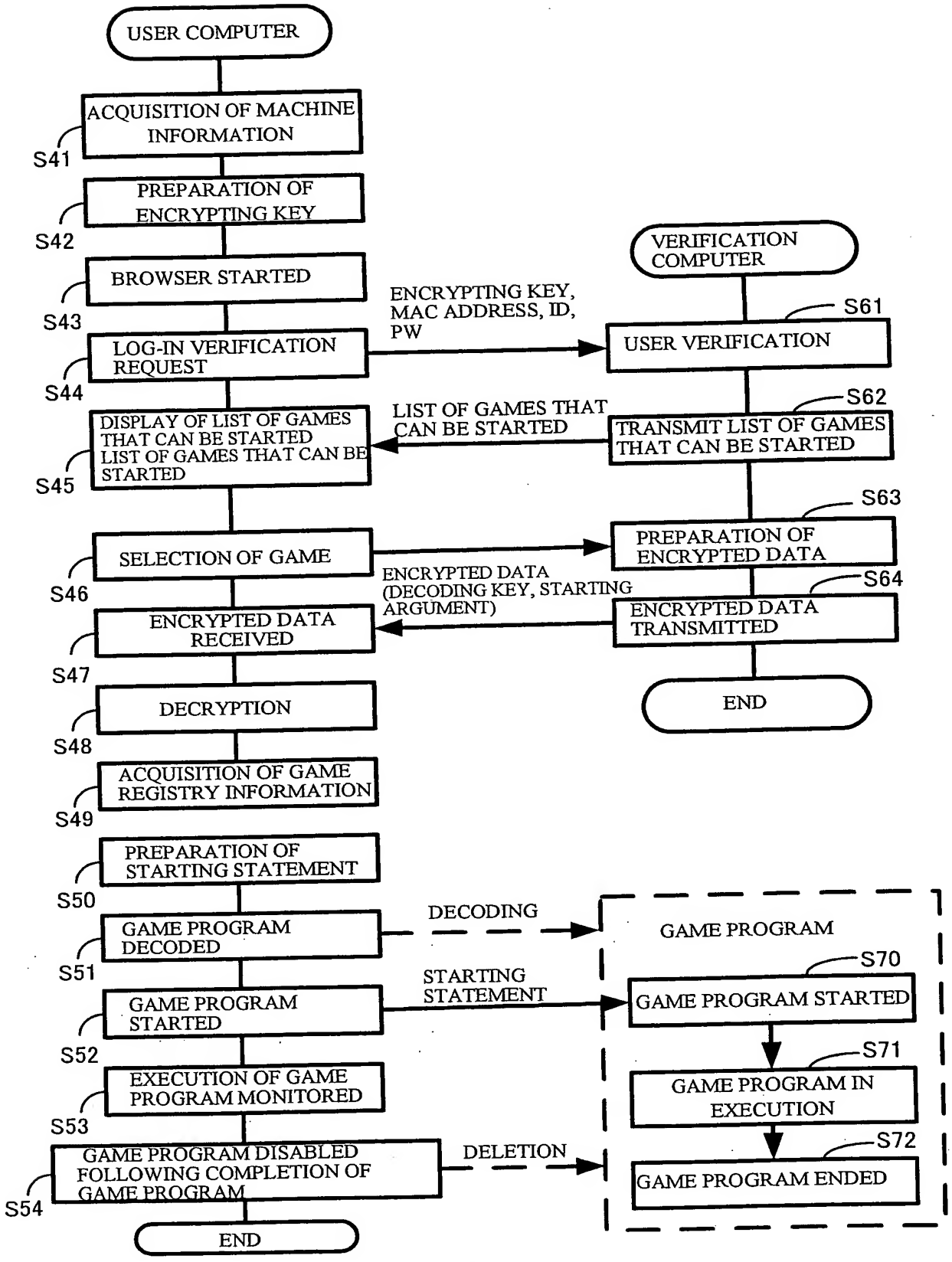

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FIG. 7

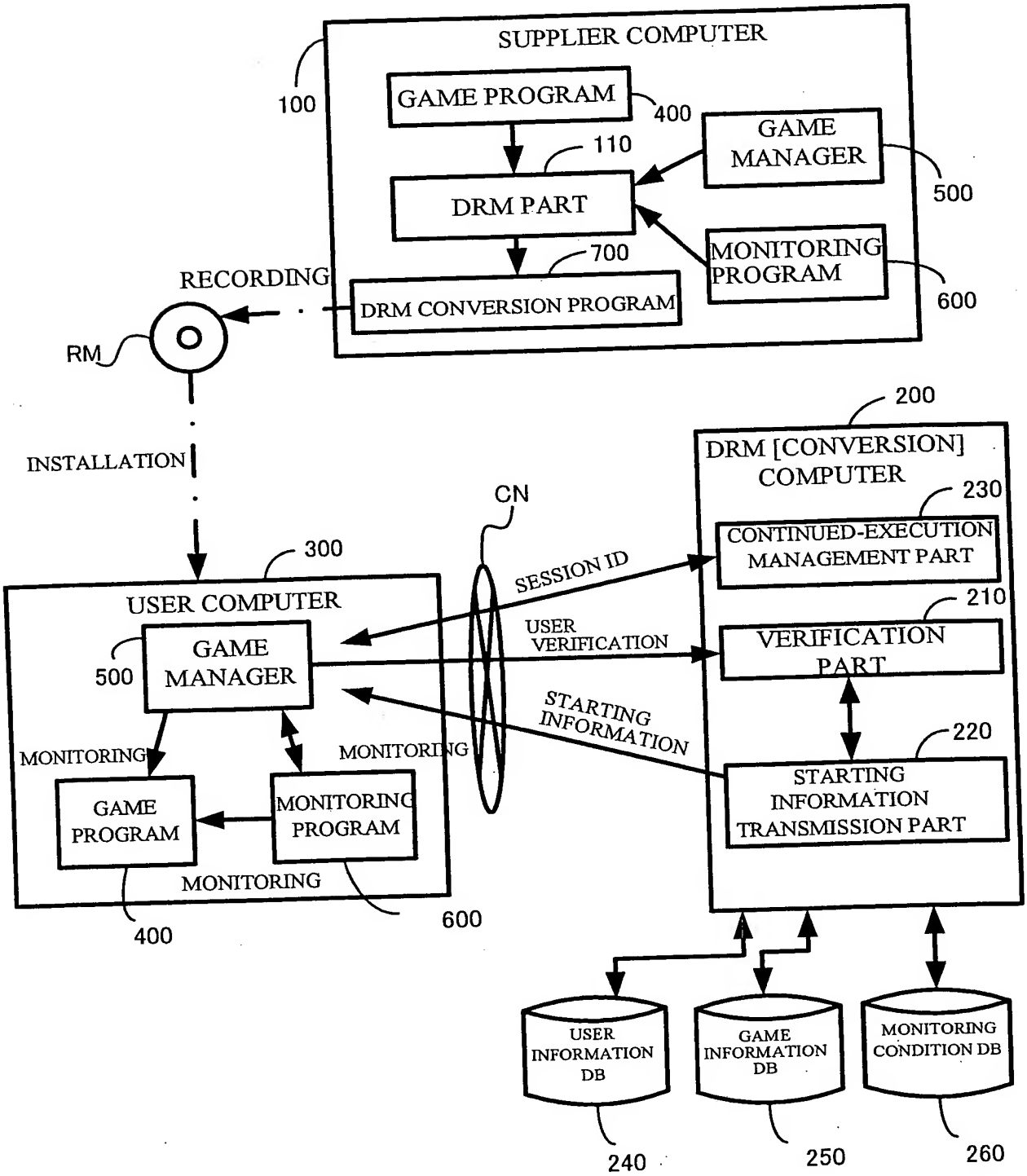

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FIG. 8

(a)

240

USER INFORMATION DATA BASE				
USER ID	PW	MAC ADDRESS	SESSION ID	OTHER
Interlex	Buddy	00-11-22-33-44-AA	Aaabbbcccddd...	

(b)

250

GAME INFORMATION DATA BASE					
GAME ID	GAME NAME	GAME INFORMATION	DECODING KEY	STARTING ARGUMENT	REPORTING MODE

REPORTING MODE:
- FIRST TIME ONLY
- EACH TIME STARTED
- MONITORING PRIORITY
- LOAD REDUCTION

(c)

260

MONITORING CONDITION DATA BASE					
USER ID	REPORTING PERIOD	PLANNED REPORTING TIME	GAME ID	GAME STARTING TIME	OTHER
USER 1	30 MINUTE INTERVALS	16:25	GAME 1	13:01	
USER 2	40 MINUTE INTERVALS	16:00	GAME 2	15:20	
USER 3	10 MINUTE INTERVALS	16:00	GAME 3	15:30	

FIG. 9

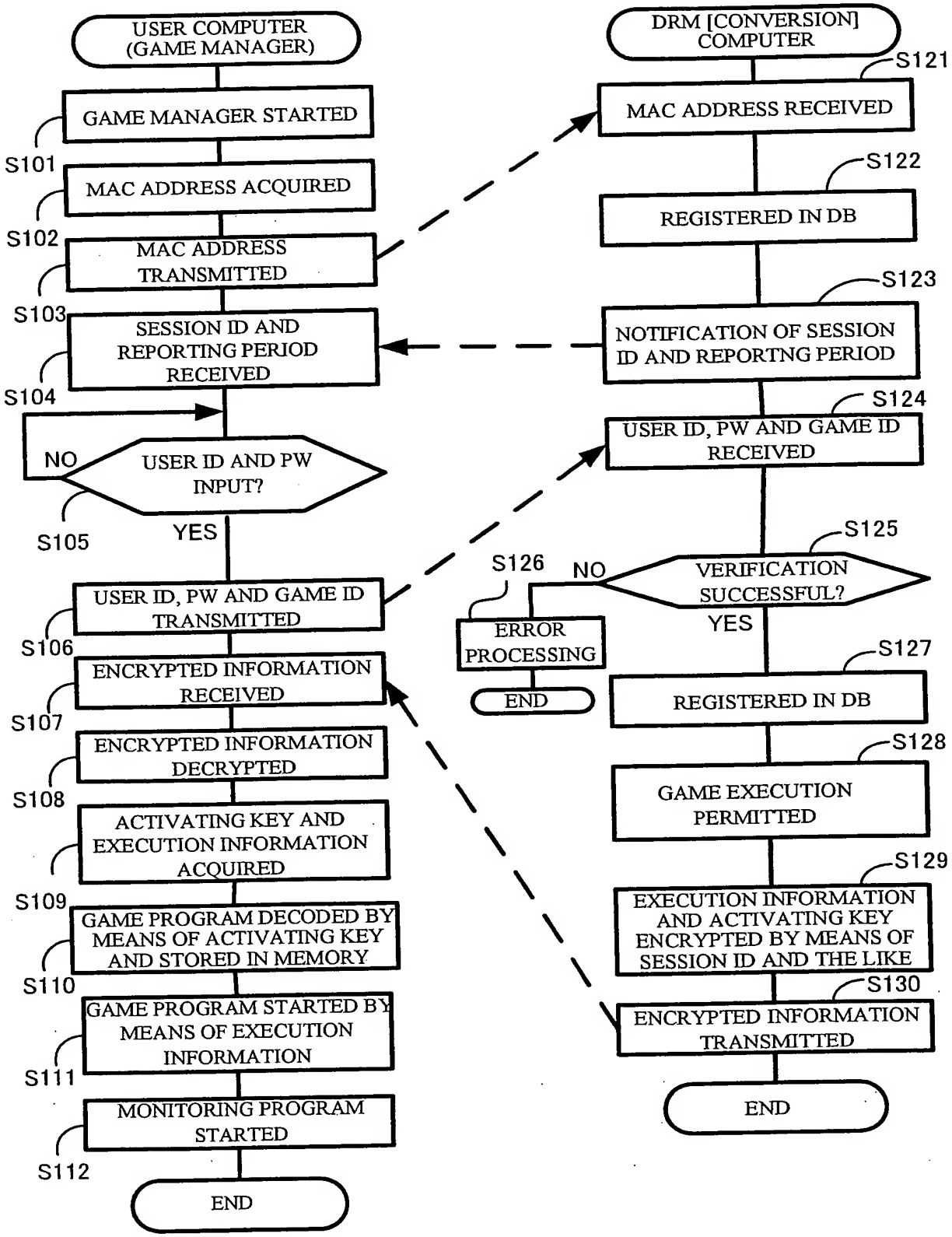
USER COMPUTER (GAME MANAGER)
GAME MANAGER STARTED
S101
MAC ADDRESS ACQUIRED
S102
MAC ADDRESS TRANSMITTED
S103
SESSION ID AND REPORTING PERIOD RECEIVED
S104
NO
USER ID AND PW INPUT?
S105
YES
USER ID, PW AND GAME ID TRANSMITTED
S106
ENCRYPTED INFORMATION RECEIVED
S107
ENCRYPTED INFORMATION DECRYPTED
S108
ACTIVATING KEY AND EXECUTION INFORMATION ACQUIRED
S109
GAME PROGRAM DECODED BY MEANS OF ACTIVATING KEY AND STORED IN MEMORY
S110
GAME PROGRAM STARTED BY MEANS OF EXECUTION INFORMATION
S111
MONITORING PROGRAM STARTED
S112
END
DRM [CONVERSION] COMPUTER
S121
MAC ADDRESS RECEIVED
S122
REGISTERED IN DB
S123
NOTIFICATION OF SESSION ID AND REPORTNG PERIOD
S124
USER ID, PW AND GAME ID RECEIVED
S125
NO
VERIFICATION SUCCESSFUL?
S126
ERROR PROCESSING
END
YES
S127
REGISTERED IN DB
S128
GAME EXECUTION PERMITTED
S129
EXECUTION INFORMATION AND ACTIVATING KEY ENCRYPTED BY MEANS OF SESSION ID AND THE LIKE
S130
ENCRYPTED INFORMATION TRANSMITTED
END

FIG. 10

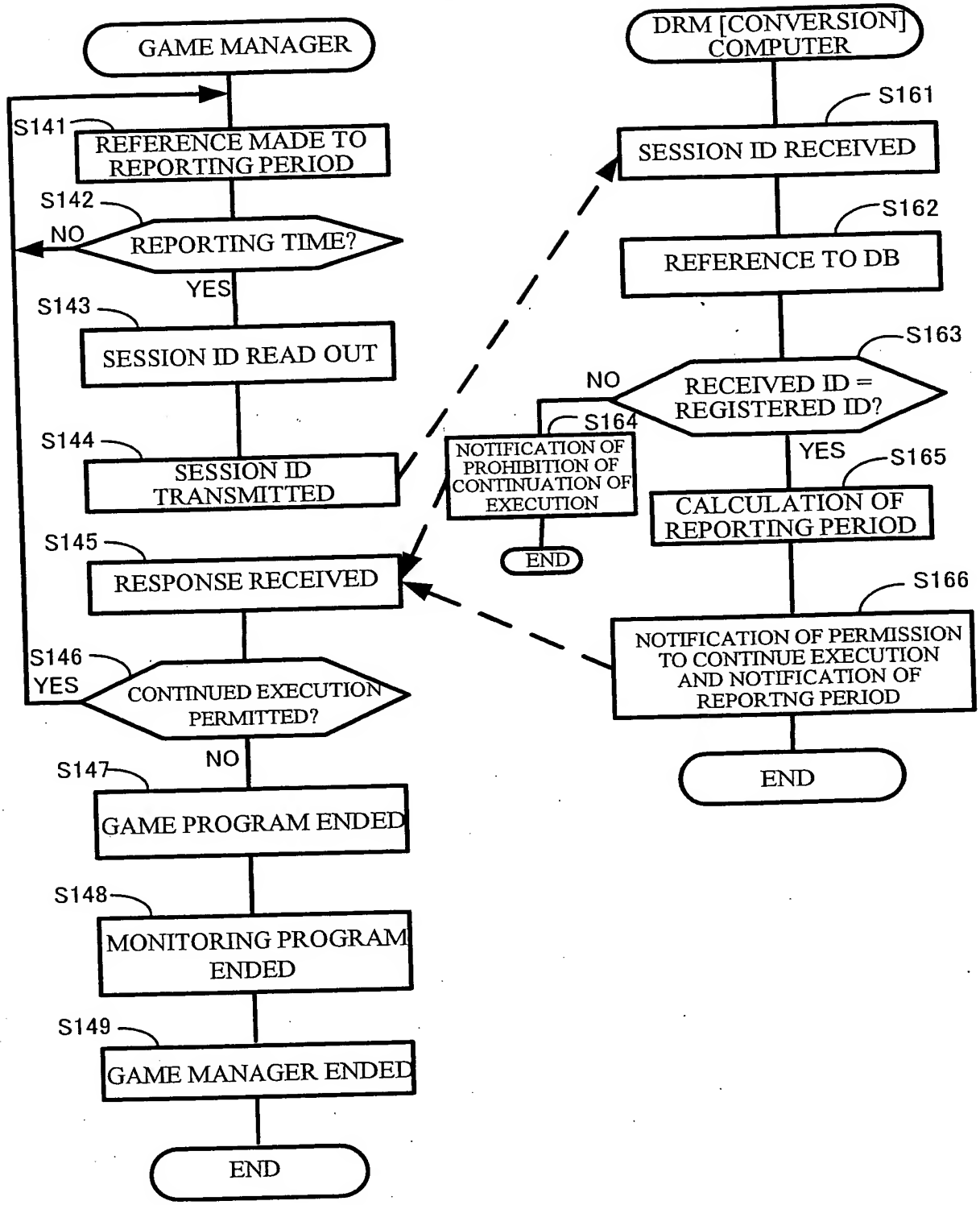
GAME MANAGER
S141
REFERENCE MADE TO REPORTING PERIOD
S142
NO
REPORTING TIME?
YES
S143
SESSION ID READ OUT
S144
SESSION ID TRANSMITTED
S145
RESPONSE RECEIVED
S146
YES
CONTINUED EXECUTION PERMITTED?
NO
S147
GAME PROGRAM ENDED
S148
MONITORING PROGRAM ENDED
S149
GAME MANAGER ENDED
END
DRM [CONVERSION] COMPUTER
S161
SESSION ID RECEIVED
S162
REFERENCE TO DB
S163
NO
RECEIVED ID = REGISTERED ID?
S164
NOTIFICATION OF PROHIBITION OF CONTINUATION OF EXECUTION
END
YES
S165
CALCULATION OF REPORTING PERIOD
S166
NOTIFICATION OF PERMISSION TO CONTINUE EXECUTION AND NOTIFICATION OF REPORTNG PERIOD
END

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FIG. 11

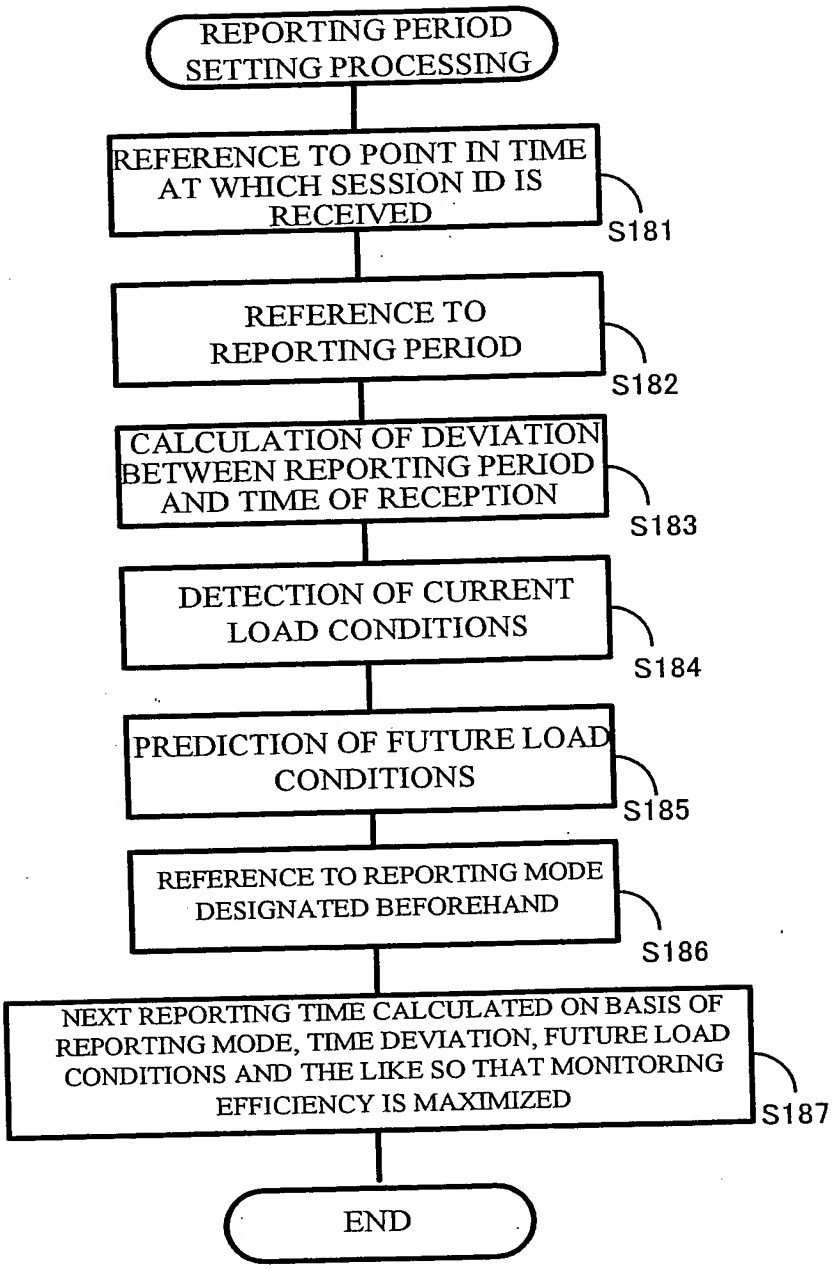
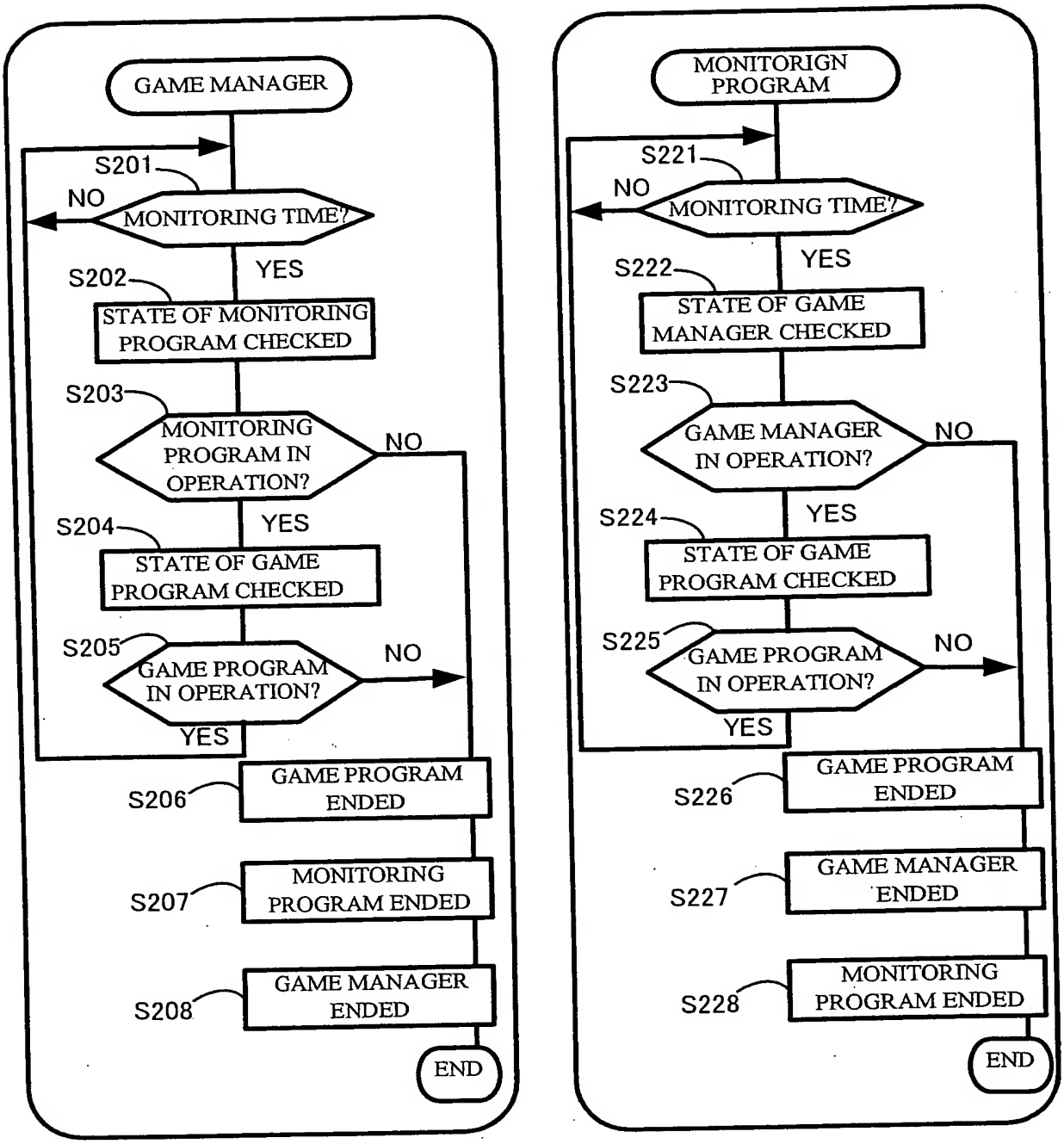


FIG. 12


GAME MANAGER
S201
NO
MONITORING TIME?
YES
S202
STATE OF MONITORING PROGRAM CHECKED
S203
MONITORING PROGRAM IN OPERATION?
NO
YES
S204
STATE OF GAME PROGRAM CHECKED
S205
GAME PROGRAM IN OPERATION?
NO
YES
S206
GAME PROGRAM ENDED
S207
MONITORING PROGRAM ENDED
S208
GAME MANAGER ENDED
END
MONITORIGN PROGRAM
S221
NO
MONITORING TIME?
YES
S222
STATE OF GAME MANAGER CHECKED
S223
GAME MANAGER IN OPERATION?
NO
YES
S224
STATE OF GAME PROGRAM CHECKED
S225
GAME PROGRAM IN OPERATION?
NO
YES
S226
GAME PROGRAM ENDED
S227
GAME MANAGER ENDED
S228
MONITORING PROGRAM ENDED
END

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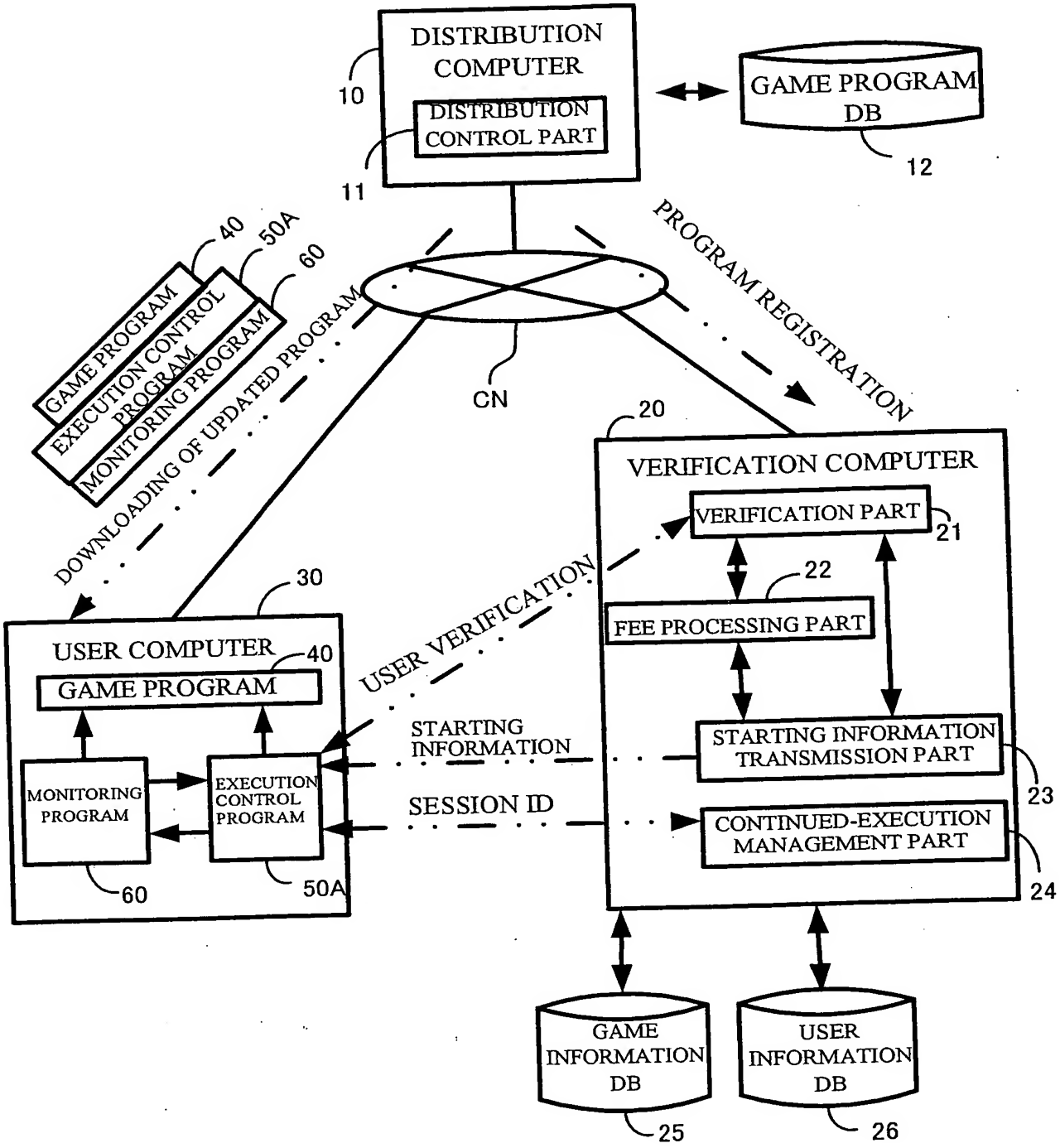
FIG. 13